

are annular and in side by side relation along the axis of rotation of said turbine wheel.

9. An aircraft engine starting and power generating system for use with an airframe mounted accessory drive unit (AMAD) associated with a turbine engine 5 comprising

a rotary turbine wheel;

a transmission connected to said turbine wheel;

a two-way clutch connected to said transmission and having first and second rotary outputs, one adapted 10 to be connected as an input to an AMAD and, the other connected as an input to a power generating apparatus such as an electrical generator and/or a hydraulic pump;

a dual nozzle for said turbine wheel and having a first 15 nozzle adapted to direct compressed air from a source such as a bleed air outlet of a turbine engine or a ground based compressor system at said turbine wheel and a second nozzle for directing hot gases of combustion at said turbine wheel;

a hot gas generator connected to said second nozzle;

a fuel supply connected to said hot gas generator to provide fuel thereto for combustion therein; and a storage tank for containing an oxidant and connected to said hot gas generator to provide oxidant thereto to support combustion therein;

whereby said turbine wheel may be driven by compressed air or by hot gases of combustion and said transmission coupled to an AMAD by said clutch to act as a conventional or emergency starter for a turbine engine associated therewith, or said turbine wheel may be driven by hot gases of combustion and said transmission coupled to a power generating device by said clutch to act as an emergency power unit.

10. The aircraft engine starting and power generating system of claim 9 in combination with a turbine engine having an AMAD coupled to a turbine of said turbine engine, said one rotary output being connected to said AMAD and being selectively drivable by operation of said clutch to drive said turbine of said turbine engine.

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